## AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) An actuator, comprising:

a case,

a mover freely movable in the case, and

stators for driving the mover by magnetic force, ~~characterized in that~~

wherein each of the stators contains a core mounted at the outside of the case and a magnetic coil wound around the core, and

wherein at least an end face of the core constituting a magnetic pole is formed of non-laminated ferromagnetic substance and is exposed to the inner surface of the case so as to form a part of the inner wall of the case.

2. (Currently Amended) The actuator according to claim 1,

wherein the mover is a rotor that is freely rotatably supported in the case, and

wherein the stators are disposed at a fixed interval in the peripheral direction so as to rotationally drive the rotor.

3. (Currently Amended) The actuator according to claim 1,

wherein the mover is [[a]] linearly freely movable in the case, and

wherein the stators are arranged at a fixed interval in the moving direction on the case so as to linearly drive the mover.

4. (Currently Amended) An actuator, comprising: ~~having~~

a case,

a mover freely movable in the case,

stators for driving the mover by electromagnetic force, and

a magnetic bearing for supporting the mover in a non-contact style so that the mover is freely movable, ~~characterized in that~~

wherein the magnetic bearing is equipped with a bearing electromagnet and a bearing ferromagnetic portion provided to a site facing a magnetic pole of the bearing electromagnet in the mover,

wherein the bearing electromagnet contains a core mounted at the outside of the case and a magnetic coil wound around the core,

wherein at least an end face constituting the magnetic pole is formed of non-laminate ferromagnetic substance, and is exposed to the inner surface of the case so as to form a part of the inner wall of the case.

5. (Currently Amended) The actuator according to claim 4,

wherein the mover is a rotor that is ~~supported~~ freely rotatable supported in the case, and

wherein the stators are arranged at a fixed interval in the peripheral direction on the case so as to rotate the rotor.

6. (Currently Amended) The actuator according to claim 5, wherein a non-magnetic substance is interposed between the rotor and the bearing ferromagnetic portion.

7. (Currently Amended) The actuator according to claim 5,

wherein the bearing electromagnet contains a thrust electromagnet for supporting the rotor in the axial direction and a radial electromagnet for supporting the rotor in the radial direction, and

wherein the bearing ferromagnetic portion contains a thrust ferromagnetic portion provided to a site facing a magnetic pole of the thrust electromagnet, and a radial ferromagnetic portion provided to a site facing a magnetic pole of the radial electromagnet.

8. (Currently Amended) The actuator according to claim 7,

wherein the radial electromagnet contains first and second radial electromagnets for supporting the rotor in radial direction at different two positions thereof, and

wherein the radial ferromagnetic portion contains a first radial ferromagnetic portion provided to a site facing a magnetic pole of the first radial electromagnet, and a second radial ferromagnetic portion provided to a site facing a magnetic pole of the second radial electromagnet.

9. (Currently Amended) The actuator according to claim 8,

wherein the rotor contains a rotor portion having plural magnetic poles projecting in the radial direction and a rotational shaft portion that is coaxial with the rotor portion and extends in the axial direction,

wherein the rotational shaft portion is formed of non-magnetic substance,

wherein the first radial ferromagnetic portion is provided to one end portion in the axial direction of the rotational shaft portion, and

wherein the second radial ferromagnetic portion is provided to the other end portion in the axial direction of the rotational shaft portion.

10. (Currently Amended) The actuator according to claim 7,

wherein [[the]] a rotor portion of the rotor is formed of an aggregated non-laminate ferromagnetic substance, and

wherein the thrust ferromagnetic portion is formed integrally with the rotor portion.

11. (Currently Amended) The actuator according to claim 4,

wherein the mover is freely linearly movable in the case, and

wherein the stators are arranged at a fixed interval in the moving direction on the case so as to drive the mover linearly.

12. (Currently Amended) The actuator according to claim 4, wherein the bearing ferromagnetic portion is formed of an aggregated non-laminate ferromagnetic substance.